

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Amit MATE et al.
Application No.: 10/030,207
Confirmation No.: 8979
Filing Date: August 10, 2004
Title: Method and System for Data Reception Acknowledgment
Art Unit: 2112
Examiner: Joseph D. Torres

Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450
September 26, 2007

RESPONSE TO OFFICE ACTION

Sir:

The Office Action dated May 7, 2007 rejected claims 43-47 as being anticipated by prior art under 35 USC 102(b). At the suggestion of the Examiner in a telephone interview, applicants hereby resubmit their arguments against the anticipation rejection of claims 43-47. Applicants respectfully request that the Examiner consider the arguments and answer the substance of them in writing.

Anticipation Rejection - Claims 43-47

The present invention relates to datagram acknowledgment schemes for indicating to a transmitter which datagrams previously transmitted to a receiver by the transmitter were incorrectly received by the receiver. The present application

discusses a prior art bitmap acknowledgment system (see page 2, paragraph 1) in which each acknowledgement message includes a set of bits, each of which corresponds to a single datagram. The state of a bit (e.g. 1) indicates that the corresponding datagram has been correctly received. The other status of a bit (e.g. 0) indicates that the corresponding datagram has been incorrectly received.

As explained in the present application, the efficiency of such a prior art bitmap acknowledgment scheme depends on the proportion of datagrams received incorrectly. If few datagrams are received incorrectly, the bitmap system is relatively inefficient since it uses a bit of data for even the correctly received datagrams (see page 2, paragraph 2 of the present application).

The acknowledgement scheme recited in the rejected claims differs from such prior art bitmap acknowledgement schemes by generating a plurality of data units for the acknowledgment messages. Each of the data units comprises a status bit and a plurality of spacing bits. The status bit indicates the status of the data unit. The spacing bits form a binary representation of a number indicative of the spacing between one incorrectly received datagram and a succeeding incorrectly received datagram. Exemplary, non-limiting, support for the claimed acknowledgement scheme can be found on page 11 of the originally filed specification. The table at the top of page 11 shows 4-bit data units. The first three bits of each data unit form the spacing bits, while the last bit of each data unit forms the status bit. The formation of data units as recited in the claims is advantageous because it uses bandwidth more efficiently over a range of different error situations than the prior art acknowledgment schemes.

The grounds for the anticipation rejection of claims 43-47 is set forth in part 7 on page 5 of the Office Action. Specifically, the claims are rejected as being anticipated by the preferred embodiment illustrated in Fig. 3 and discussed at col. 4, lines 7-36, of U.S. Patent No. 5,444,718 issued to Ejzak et al (this preferred embodiment hereinafter referred to simply as "Ejzak"). Applicants respectfully traverse the rejection on the grounds that it fails to establish that Ejzak includes each and every one of the combination of features recited in the rejected claims.

For example, each one of claims 43 to 47 recites the features of generating a plurality of data units, each data unit comprising a status bit indicative of the status of

the data unit and a plurality of spacing bits that together form a binary representation of a number indicative of the spacing between one incorrectly received datagram and a succeeding incorrectly received datagram.

Ejzak appears to relate to a bitmap acknowledgment scheme similar to the prior art scheme described on page 2 of this application. This can be seen by considering the section of the Ejzak patent referred to by the rejection:

"Periodically, receiver 200 sends to transmitter 100 via buffer modulator 220 a status control message indicating, inter alia, which packets were received correctly and not correctly (or not at all). (Hereinafter, reference to packets that were received not correctly will also include packets that were not received at all.) An illustrative example of a status control message is shown in FIG. 3. In particular, the error check field contains a conventional error check code that permits transmitter 100 to determine whether or not the status control message contains errors that may be due to channel noise and fading. The NR field contains a sequence number one larger than that of the last data packet that the receiver passed to its respective upper control layer. The NL field contains the largest sequence number packet that the receiver received correctly. Bit map field "bmf" is formed from bit map 216 (FIG. 1) and is the means by which receiver 200 "tells" transmitter 100 which data packets were received correctly or incorrectly. The bit positions of field "bmf" correspond with data packet sequence numbers relative to the sequence number contained in the NR field of the associated status message, in the manner discussed above. Similarly, the value of a bit in the bmf field indicates whether the corresponding data packet was received correctly (e.g., a binary one) or incorrectly (e.g., a binary zero), as mentioned above. For example, if the value in field NR happened to be 8, then bit NR+1 corresponds with data packet 9, bit NR+2 with data packet 10, bit NR+3 with data packet 11, and so on." (col. 4, lines 7-36)(underlining added)

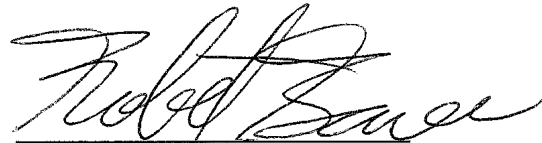
As explained above in the present application, the efficiency of a bitmap acknowledgment scheme such as Ejzak depends on the proportion of datagrams received incorrectly. If few datagrams are received incorrectly, the bitmap system is relatively inefficient since it uses a bit of data for even the correctly received datagrams (see page 2, paragraph 2 of the present application).

Each of the claims 43 to 47 includes the features of generating a plurality of data units, each data unit comprising a status bit indicative of the status of the data unit and a plurality of spacing bits that together form a binary representation of a number indicative of the spacing between one incorrectly received datagram and a succeeding incorrectly received datagram. The bitmap in Ejzak does not include a plurality of data units that each includes a status bit and a plurality of spacing bits. Indeed, the rejection has not identified where a plurality of data units are present in

Ejzak, nor where Ejzak includes status bits indicative of the status of a data unit.
Therefore, claims 43 to 47 are not anticipated by Ejzak.

Applicants hereby petition for a second month extension of time of the response period for the Office Action. The Commissioner is hereby authorized to charge the extension fee, and any other fees which may be necessary for the consideration of this Amendment, to Deposit Account No. 10-0100 (NOKIA.4010US).

Respectfully Submitted,

A handwritten signature in cursive script, appearing to read "Robert Bauer".

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Dated: **September 26, 2007**